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(दूसरा पुनरीक्षण)

Indian Standard

DIVIDING BREECHING WITH CONTROL FOR FIRE BRIGADE USE — SPECIFICATION

(Second Revision)

ICS 13.220.10

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

November 2002 **Price Group 3**

Fire Fighting Sectional Committee, CED 22

FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Fire Fighting Sectional Committee had been approved by the Civil Engineering Division Council.

Dividing breeching is used by the fire brigades for dividing a single line of hose into two. A good practice is to fit a dividing breeching with control in the hose line even if a single line is to be used. This enables a second line to be added later, if required. Also, if two lines are in use through a dividing breeching with control, one of these can be shut-off, if required.

This standard was first published in 1969 and revised in 1986. This revision has been prepared so as to give specific dimensions for the various parts changes in materials of components besides updating the requirements so as to make it in line with related Indian Standards which have been revised.

The composition of the Committee responsible for the formulation of this standard is given at Annex B.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

DIVIDING BREECHING WITH CONTROL FOR FIRE BRIGADE USE — SPECIFICATION

(Second Revision)

1 SCOPE

This standard lays down the requirements for material, construction, workmanship, finish and performance tests for dividing breeching with control for fire brigade use.

2 REFERENCES

The Indian Standards given in Annex A contain provisions which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards.

3 GENERAL

The dividing breeching with control shall consist of body, revolving sleeve, control handle, inlet and two outlets.

4 MATERIAL

4.1 Body, Revolving Sleeves, Connectors and Handle

It shall be made either of leaded tin bronze conforming to Grade LTB 2 of IS 318 or aluminium alloy conforming to designations 4225, 4450 and 4600 of IS 617 stainless steel conforming to Grade I or IV of IS 3444.

4.2 Control Handle

It shall be made of mild steel conforming to IS 2062.

4.3 Inlet

It shall be made of half coupling, conforming to IS 903.

4.4 Outlet

It shall be having 2 numbers female instantaneous outlet as per IS 5290.

4.5 Washer

It shall conform to IS 937.

4.6 Ball

It shall be made of stainless steel conforming to Grade I or IV of IS 3444.

4.7 Spring

It shall be made either of phosphor bronze conforming to IS 7608 or stainless steel conforming to IS 6528.

4.8 Valve Seat

It shall be made of teflon.

4.9 Pin

It shall be made of stainless steel conforming to IS 6603.

5 TYPES AND DIMENSIONS

5.1 The typical shape and essential dimensions shall be as shown in Fig. 1 and Fig 2. The two types are:

a) *Type A* — It shall be as per Fig. 1 or Fig. 2 of bush design.

b) *Type B* — It shall be as per Fig. 2 of ball design.

6 CONSTRUCTION

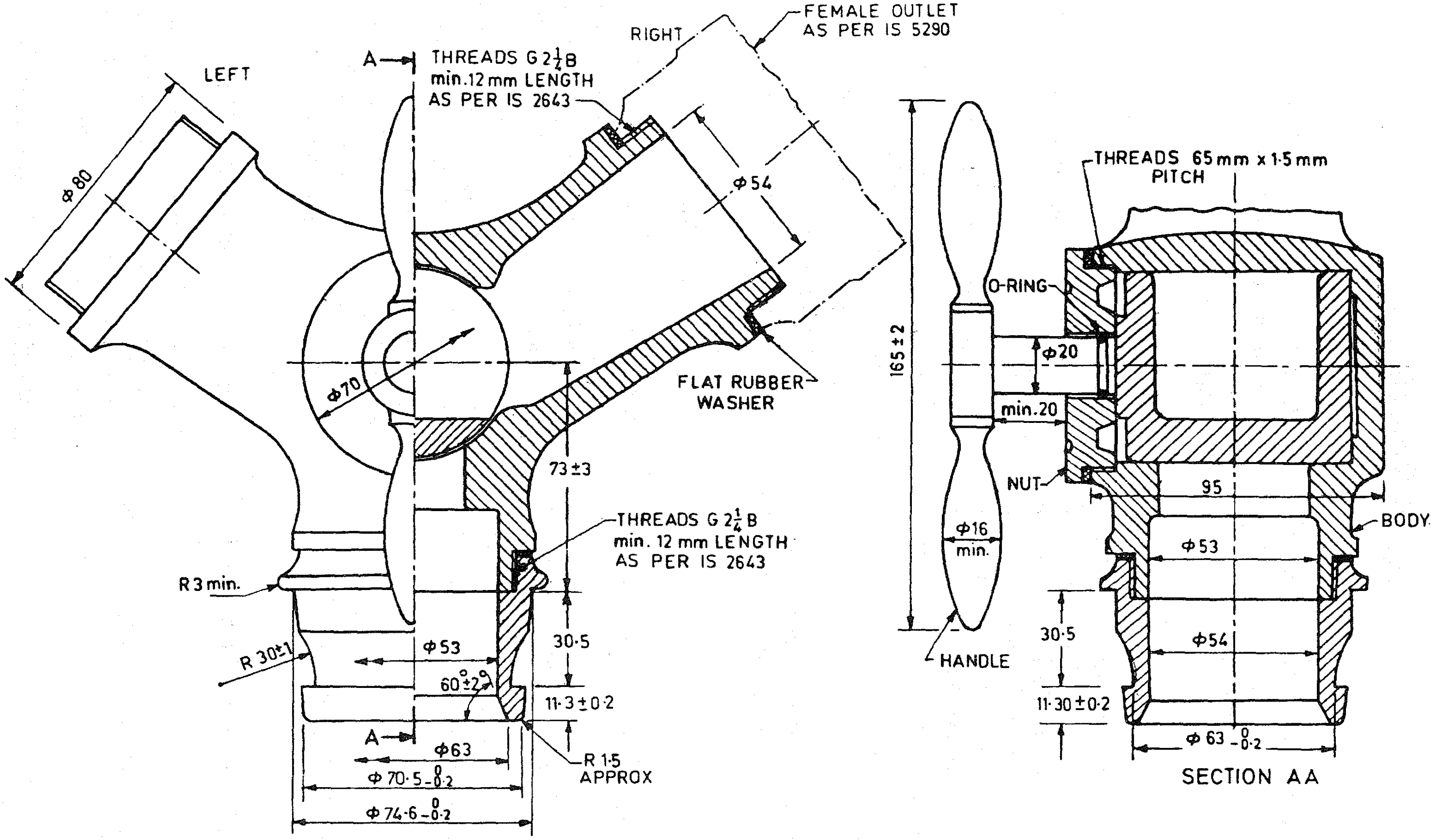
The body shall have a central chamber (*see* Fig. 1) having an inlet at one end and two outlet at the other end. The axes of the outlet shall form an angle of 45° with the axis of the inlet and central chamber shall be like a hollow cylinder with removable top and smooth internal surface. The revolving sleeves shall be hollow and should fit closely with a central chamber of the body and shall be covered on the top and passed through the gland in the top of the central chamber of the body. These shall be so positioned that they coincide with inlet and outlets in the body as the case may be.

7 PERFORMANCE REQUIREMENT

The assembled unit shall be subjected to a hydraulic pressure of 2.1 MN/mm^2 (21 kgf/cm^2) for 150s with both outlets closed. There shall be no leakage through the outlets, gland and the casting.

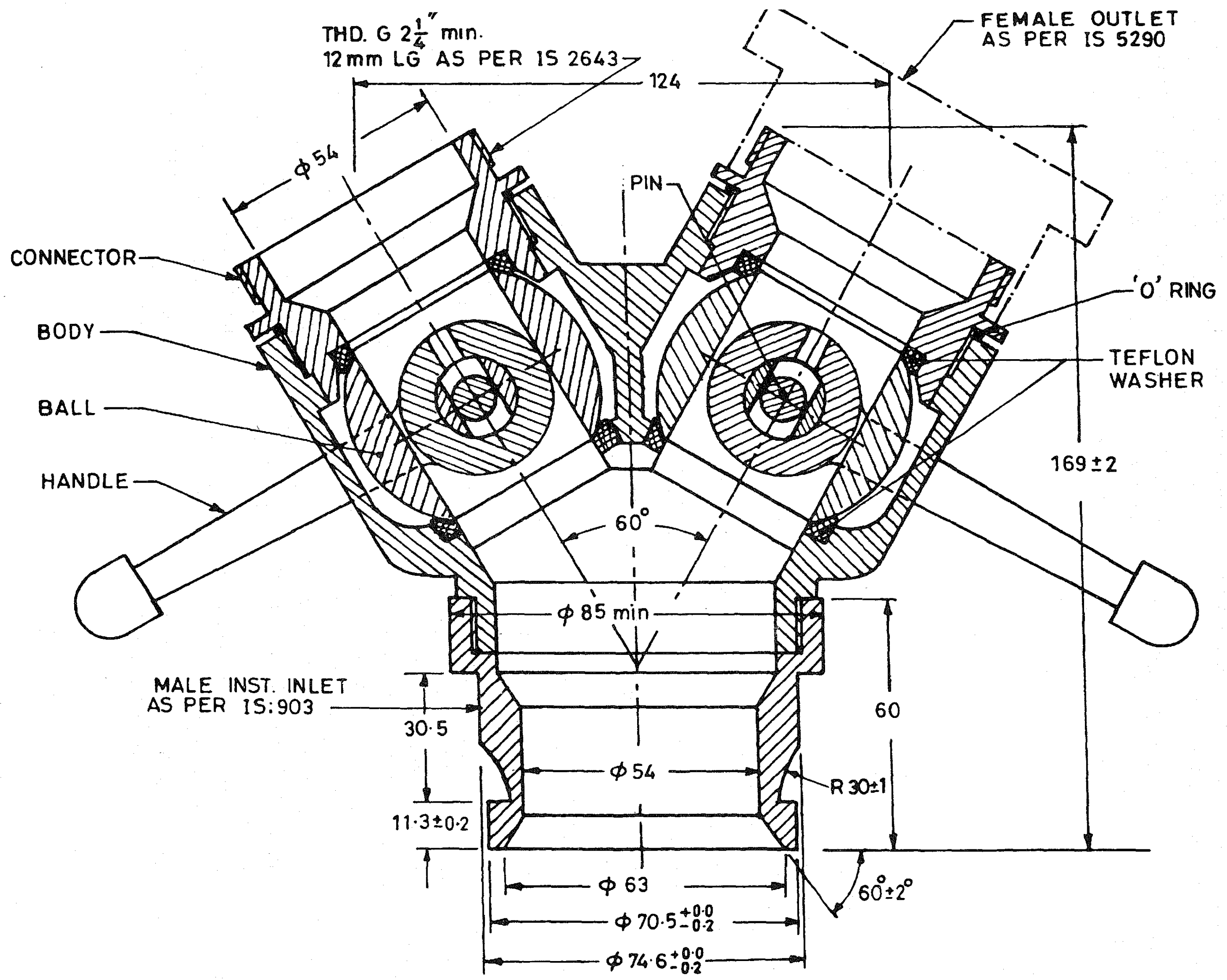
8 WORKMANSHIP AND FINISH

All parts shall be of good workmanship and shall be free from burrs and sharp edges. All casting shall be clean and sound and shall be free from plugging, welding or repaired defects.



All dimensions in millimetres.

FIG. 1 DETAILS OF DIVIDING BREECHING WITH CONTROL



All dimensions in millimetres.

FIG. 2 DETAILS FOR DIVIDING BREECHING TYPE 'B'

9 CRITERIA FOR CONFORMITY

Each fitting shall be checked for the requirements given in this standard.

10 MARKING

10.1 Each fitting shall be clearly and permanently marked with the following information:

a) Manufacturer's name or trade-mark, and
b) Year of manufacture.

10.2 BIS Certification Marking

Each fitting may also be marked with the BIS Standard Mark.

10.2.1 The use of Standard Mark is governed by provisions of the *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations made there under. The details of conditions under which a licence for the use of Standard Mark may be granted to manufacturers or producers, may be obtained from the Bureau of Indian Standards.

ANNEX A

(*Clause* 2)

LIST OF REFERRED INDIAN STANDARDS

IS No.	*Title*
318 : 1981	Specification for leaded tin bronze ingots and casting (*second revision*)
617 : 1994	Aluminium and aluminium alloy ingots and castings for general engineering purposes (*third revision*)
903 : 1993	Specification for fire hose delivery couplings, branch pipe, nozzles and nozzle spanner (*fourth revision*)
937 : 1981	Specification for washers for water fittings for fire fighting purposes (*second revision*)
2062 : 1992	Steel for general structural purposes — Specification (*fifth revision*)
2643 : 1999	Pipe threads where pressure-tight joints are not made on the threads — Dimensions, tolerances and designation (*second revision*)
3444 : 1999	Corrosion resistant high alloy steel and nickel based castings for general applications — Specification (*third revision*)
5290 : 1993	Specification for landing valves (*third revision*)
6528 : 1995	Stainless steel wire (*first revision*)
6603 : 2001	Stainless steel bars and flats — Specification (*first revision*)
7608 : 1987	Phosphor bronze wire for general engineering purposes (*first revision*)

ANNEX B

(Foreword)

COMMITTEE COMPOSITION

Fire Fighting Sectional Committee, CED 22

Organization	*Representative(s)*
Ministry of Home Affairs, New Delhi	Shri Om Prakash (***Chairman***)
Airport Authority of India, New Delhi	Shri L. C. Gupta Shri H. S. Rawat (*Alternate*)
Andhra Pradesh Fire Services, Hyderabad	Shri Swaranjit Sen
Bhabha Atomic Research Centre, Mumbai	Chief Fire Officer
Bombay Fire Brigade, Mumbai	Chief Fire Officer Shri G. S. Sawant (*Alternate*)
Central Building Research Institute, Roorkee	Dr T. P. Sharma Dr A. K. Gupta (*Alternate*)
Central Industrial Security Force, New Delhi	Deputy Inspector General (Fire) Shri S. L. Nagarkar (*Alternate*)
Central Public Works Department, New Delhi	Chief Engineer (E)
Centre for Environment & Explosive Safety, Delhi	Shri A. K. Kapoor Shri H. S. Kaparwan (*Alternate*)
Concord Arai Pvt Limited, Chennai	Shri R. Ramakrishnan
Controllerate of Quality Assurance, Pune	Col G. P. Krishnamurthy
Defence Research & Development Organization, Delhi	Director (Fire Safety) Deputy Director (Fire Safety) (*Alternate*)
Delhi Fire Service, New Delhi	Shri R. C. Sharma Shri Surinder Kumar (*Alternate*)
Directorate General of Supplies & Disposals, Hyderabad	Shri M. Gangaraju Shri V. K. Verma (*Alternate*)
Engineer-in-Chief's Branch, Army Headquarters, New Delhi	Shri R. A. Dubey Shri Ajay Shankar (*Alternate*)
Fire & Safety Appliances Company, Kolkata	Shri S. N. Kundu
Home (Police Department), Hyderabad	Deputy Director (Fire Safety)
Home Department (Fire Service), Chennai	Director Deputy Director (*Alternate*)
In personal capacity (*Nandamvanam 33/2965-A, Vennala High School Road, Vennala, Cochin*)	Shri G. B. Menon
In personal capacity (*29/25, Rajendra Nagar, New Delhi*)	Shri S. K. Dheri
Institution of Fire Engineers (India), New Delhi	President General Secretary (*Alternate*)
Kooverji Devshi & Co (P) Limited, Mumbai	Shri P. H. Sethna Shri N. T. Panjwani (*Alternate*)
Loss Prevention Association of India, Mumbai	Managing Director Shri D. K. Sarkar (*Alternate*)
K. V. Fire Chemicals, Navi Mumbai	Shri H. M. Sabadra
Mather & Platt (India) Limited, New Delhi	Shri Deepak Agarwal
MECON Limited, Ranchi	Shri R. N. Chachra Shri Sunil Das (*Alternate*)
Ministry of Home Affairs, New Delhi	Shri D. K. Shami
Newage Industries, Mumbai	Shri B. J. Shah Shri A. M. Shah (*Alternate*)

(*Continued on page* 6)

(*Continued from page* 5)

Organization	*Representative(s)*
Northern Railways, New Delhi	Shri I. M. Mansoori
Oil & Natural Gas Commission, Dehra Dun	Shri R. P. Saxena
	Shri Neeraj Sharma (*Alternate*)
Oil Industry Safety Directorate, New Delhi	Joint Director (Process)
Real Value Appliances Limited, New Delhi	Shri Ashutosh Mangal
Safex Fire Services Limited, Mumbai	Shri Jitendra Shah
	Shri Sandip Shah (*Alternate*)
State Bank of India, Mumbai	Shri J. S. Gahlaut
State Fire Training Centre, Mumbai	Dr Navinchandra Jain
Steel Authority of India Ltd, Rorukela	Shri B. N. Das
	Shri B. P. Das (*Alternate*)
Steel Authority of India Ltd, Bokaro	Shri A. Rautela
	Shri C. P. Singh (*Alternate*)
Steelage Industries Limited, New Delhi	Shri Shivnath
	Shri V. Kamalanatha (*Alternate*)
Surex Production & Sales (P) Limited, Kolkata	Shri Tarit Sur
	Shri D. Neogi (*Alternate*)
Tariff Advisory Committee, Mumbai	Shri A. Mukherjee
	Shri H. C. Mahesh Kumar (*Alternate*)
Tariff Advisory Committee, Chennai	Shri T. R. A. Krishnan
Vijay Fire Protection Systems Pvt Limited, Mumbai	Shri Harish Salot
West Bengal Fire Service, Kolkata	Shri B. Pathak
BIS Directorate General	Shri S. K. Jain, Director & Head (Civ Engg) [Representing Director General (*Ex-officio*)]

Member Secretary
Shri S. Chaturvedi
Joint Director (Civ Engg), BIS